

Independent.co.uk

# Climate change could kill one in 10 species by end of the century

By Steve Conner, Science Editor

*Tuesday, 12 July 2011*

Climate change is speeding up the rate at which animals and plants are becoming extinct. By the end of the century, one in 10 species could be on the verge of extinction because of the effects of global warming, a study has found.

The findings support the view that the earth is currently experiencing a global mass extinction where the rate at which species are being lost is many times greater than the historical extinction rate. It is the sixth great mass extinction in the history of life on earth. Scientists said that previous predictions of how fast species are being lost because of climate change match the actual observed losses. They calculate that around 10 per cent of species alive today could be facing extinction by 2100.

Ilya Maclean and Robert Wilson, of the University of Exeter, examined nearly 200 previous predictions about how climate change may affect the extinction of species and compared them with about 130 reports of changes already observed.

The aim was to judge the accuracy of estimates made by scientists in the past about climate change predictions in relation to species extinction. They concluded that the observed threats matched well with the actual threats, based on real observations.

"We tried to see whether predictions were backed up by things that have already happened and this was what we found," Dr Maclean said.

Rising temperatures, changing patterns of rainfall and increasing acidity of the oceans are all having an impact on the viability of vulnerable species. In the oceans, for instance, rising acidity threatens the survival of the polyp organisms that make coral reefs while increasing temperatures are sending some mountain species of plants and animals to higher altitudes.

"Our study is a wake-up call for action. The many species that are already declining could become extinct if things continue as they are. It is time to stop using the uncertainties as an excuse for not acting. Our research shows that the harmful effects of climate change are already happening and, if anything, exceed predictions," Dr Maclean said.

"The implications are that unless we do something to reverse climate change impacts by lowering levels of carbon dioxide, or help species cope with climate change, we could be looking at a lot of extinctions by the end of the century. It's further evidence that we are experiencing a global mass extinction," he said.

The study, published in the journal *Proceedings of the National Academy of Sciences*, found that global warming ranks alongside habitat loss and invasive species as a major threat to endangered animals and plants. It concluded that the speed at which the climate is likely to change in the future threatens to overwhelm the rate at which species are able to adapt.

"By looking at such a range of studies from around the world, we found that the impacts of climate change can be felt everywhere, and among all groups of animals and plants," said Robert Wilson, the study's co-author.

"From birds to worms to marine mammals, from high mountain ranges to jungles and to the oceans, scientists seem to have been right that climate change is a real threat," Dr Wilson said. "We need to act now. This means cutting carbon emissions and protecting species from the other threats they face, such as habitat loss and pollution."

---

©**independent.co.uk** [Terms & Policies](#) | [Privacy Policy](#) | [Email newsletter](#) | [RSS](#) | [Contact us](#) | [Syndication](#) | [Advertising Guide](#) | [Subscriptions](#) | [Jobs](#) | [Evening Standard](#) | [Homes & Property](#) | [London Careers](#) | [Novaya Gazeta \(English\)](#)